

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Patent Application of : Before the Board of Appeals  
Kaoru Tsukamoto et al. : Appeal No.:  
Serial No.: 10/730,095 : Group No.: 3714  
Filed: December 9, 2003 : Examiner: K. Hu  
For: KARAOKE SERVICE METHOD AND SYSTEM BY MOBILE DEVICE

December 6, 2007

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Conf. No.: 2690

For: KARAOKE SERVICE METHOD AND SYSTEM BY MOBILE DEVICE

**APPEAL BRIEF**

U.S. Patent and Trademark Office

**\*\*Via efilng\*\***

Randolph Building  
401 Dulany Street  
Alexandria, VA 22314

Date: December 6, 2007

Sir:

In response to the Final Office Action dated May 7, 2007, and further responsive to the Notice Of Appeal filed on October 9, 2007, this corresponding Appeal Brief is respectfully submitted.

**I. REAL PARTY IN INTEREST**

This application is assigned to Oki Electric Industry Co., Ltd., which is the real party in interest.

**II. RELATED APPEALS AND INTERFERENCES**

There are no other appeals or interferences that may be related to, that would directly affect or be directly affected by, or have a bearing on the Board's decision in this pending appeal.

**III. STATUS OF THE CLAIMS**

Claims 6-19 (rejected).

Claims 6-19 have been finally rejected. Accordingly, the rejections of claims 6-19 are being appealed.

**IV. STATUS OF AMENDMENTS**

Subsequent to the Final Office Action dated May 7, 2007, Appellants submitted a Request for Reconsideration dated August 3, 2007, without amending the pending claims, and thereafter submitted a Supplemental Request for Reconsideration dated September 5, 2007 (responsive to the Advisory Action dated August 16, 2007), without amending the pending claims. Thus, the claims have not been amended subsequent to the final Office Action dated May 7, 2007.

**V. SUMMARY OF CLAIMED SUBJECT MATTER**

The present invention relates to a system and method for realizing karaoke in a mobile device such as a cellular phone or a personal digital assistant (PDA), that

enables synchronization between applications using limited hardware resources in a limited volume.<sup>1</sup>

The mobile karaoke device as broadly featured in independent claim 6 includes in combination a memory (103 in Fig. 1) that stores karaoke contents including karaoke event data in time order and song data, the song data having synchronization data embedded therein (e.g., page 3, lines 9-19, page 6, lines 15-17 and Fig. 10 of the application as filed); a sound generator (102) that plays sound responsive to the song data (e.g., page 3, lines 7-8); and a multimedia processor (101) that provides the song data to said sound generator (102), and that executes karaoke events according to the karaoke event data (e.g., page 3, lines 1-4), said sound generator (102) responding to receipt of the synchronization data embedded within the song data by sending an interrupt signal to said multimedia processor (101) (e.g., page 3, lines 20-21 and page 4, lines 10-12), said multimedia processor (101) executing the karaoke events in time order in synchronization responsive to receipt of the interrupt signal (e.g., page 4, lines 13-18).

As broadly featured in dependent claim 8, the multimedia processor (101) divides the karaoke event data into a number of event zones by executing a reset event

<sup>1</sup> In the description to follow, citations to various reference numerals, figures and corresponding text in the specification are provided solely to comply with Patent Office rules. It should be understood that these reference numerals, figures, and text are exemplary in nature, and not in any way limiting of the true scope of the claims. It would therefore be improper to import anything into any of the claims simply on the basis of exemplary language that is provided here only under the obligation to satisfy Patent Office rules for maintaining an Appeal.

(e.g., page 5, lines 17-23, page 7, lines 14-15 and 19-21, and Figs. 8 and 9).

The mobile karaoke service method as broadly featured in independent claim 13 includes in combination storing karaoke contents including karaoke event data in time order and song data, the song data having synchronization data embedded therein (e.g., page 3, line 9-19, page 6, lines 15-17 and Fig. 10 of the application as filed); playing sound responsive to the song data (e.g., page 3, lines 7-8); generating an interrupt signal responsive to the synchronization data embedded within the song data (e.g., page 3, lines 20-21 and page 4, lines 10-12); and executing the karaoke events in time order in synchronization responsive to generation of the interrupt signal (e.g., page 4, lines 13-18).

As broadly featured in dependent claim 15, the karaoke event data is divided into a number of event zones by executing a reset event (e.g., page 5, lines 17-23, page 7, lines 14-15 and 19-21, and Figs. 8 and 9).

## **VI. GROUND OF REJECTION TO BE REVIEWED ON APPEAL**

The issues on Appeal are:

- (1) The rejection of claims 8 and 15 under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement; and
- (2) The rejection of claims 6-19 under 35 U.S.C. 102(e) as being anticipated by the Naples et al. reference (U.S. Patent Application Publication No. 2002/0162445).

## VII. ARGUMENTS

(1) Claims 8 and 5 are in compliance with 35 U.S.C. 112, first paragraph

Claims 8 and 15 have been rejected under 35 U.S.C. 112, first paragraph, as allegedly failing to comply with the enablement requirement. This rejection is respectfully traversed for the following reasons.

As set forth on page 2 of the Final Office Action dated May 7, 2007, the Examiner has asserted that the claims contain subject matter which was not described in the specification in such a way as to enable one skilled in the art to make and/or use the invention. The Examiner has asserted that:

***“The claims state that the event zones are separated by an execution of reset event, however it does not explain exactly how it is accomplished.***

***The claim will be interpreted as best understood by the examiner”.***

As noted above, the Examiner has asserted that claim 8 for instance does not “explain exactly” how the features recited are “accomplished”. However, as emphasized in the Request for Reconsideration dated August 3, 2007, claims may be written broadly, without explaining or limiting how a function is carried out. That is, it should be understood as well settled that a claim may recite the function of an element or a component of a device, without explaining or limiting how the element or component specifically carries out or performs the function. For example, under 35 U.S.C. 112, sixth paragraph, merely the function of an element may be recited,

without narrowly specifying how the function is carried out. (Appellants however do not suggest that claims 8 and 15 should be interpreted under 35 U.S.C. 112, sixth paragraph.)

On page 2 of the Advisory Action dated August 16, 2007, the Examiner has asserted:

***“Furthermore, the claims itself does not explain or limit how the function is carried out. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims”.***

Appellants respectfully submit that this issue regarding how the claim language itself explains how a function is carried out, as perceived by the Examiner, is not properly addressable under 35 U.S.C. 112, first paragraph. That is, this issue regarding claim language as raised by the Examiner would appear to more properly be a matter of claim scope. This rejection under 35 U.S.C. 112, first paragraph is thus improper for at least these reasons.

The mobile karaoke device of claim 8 features that the multimedia processor “divides the karaoke event data into a number of event zones by executing a reset event”.

As emphasized in the Supplemental Request for Reconsideration dated September 5, 2007, as described beginning on page 7, line 6 of the present application, event processing may be done in an overlapping mode, wherein for example a Text

Event 903 as shown in Fig. 9 is displayed on the mobile device, in an overlapping manner with a Picture Event 904. It should be noted that Text Event 903, Picture Event 904 and Video Event 905 are shown together as Event Data-1. As further described beginning on page 7, line 14 of the present application, the Reset Event R as designated in Fig. 8, clears all previous events. That is, the display of the mobile device is cleared responsive to a Reset Event R, so that a subsequent or new block of Event Data such as Event Data-2 including Picture or Text Events may thereafter be displayed. As described beginning on page 7, line 19 of the present application, since the Reset Event has a clearing function, it should readily be understood that the Reset Event is useful as bounding or dividing karaoke events as displayed. The Reset Event R shown in Fig. 8 is an event that may be included as in the event data (Event Data-1 or Event Data-2) shown in Fig. 9.

Appellants respectfully submit that contrary to the Examiner's further assertions on page 2 of the Advisory Action dated August 16, 2007, one of ordinary skill in the art of mobile devices would readily understand how the above noted Reset Event may be characterized as bounding or dividing karaoke event data into a number of event zones, by clearing previous event data. One of ordinary skill would generally understand how karaoke events as displayed visually or musically could be cleared (in other words deleted so as to no longer be displayed or musically played). Consequently, one of ordinary skill in mobile communication device art would readily understand how to make and/or use such a device to carry out dividing event data by executing a Reset Event R



as featured in claim 8.

Appellants further assert that there is no requirement in the statutes necessitating that a claim "exactly explains" how a function is accomplished, as apparently asserted by the Examiner. Such a requirement would unnecessarily limit claim scope.

Appellants respectfully submit that the specification would enable one of ordinary skill to make and/or use the invention, and that claims 8 and 15 are in compliance with 35 U.S.C. 112, first paragraph. The Board is therefore respectfully requested to withdraw this rejection.

(2) Claims 6-19 distinguish over the Naples et al. reference

Claims 6-19 have been rejected under 35 U.S.C. 102(e) as being anticipated by the Naples et al. reference. This rejection is respectfully traversed for at least the following reasons.

Claims 6 and 13

The mobile karaoke device of claim 6 includes in combination among other features a sound generator "that plays sound responsive to the song data"; and a multimedia processor "that provides the song data to said sound generator, and that executes karaoke events according to the karaoke event data". The sound generator is further featured as "responding to receipt of the synchronization data embedded within the song data by sending an interrupt signal to said multimedia processor, said

multimedia processor executing the karaoke events in time order in synchronization responsive to receipt of the interrupt signal". Appellants respectfully submit that the Naples et al. reference as relied upon by the Examiner fails to disclose all of these features.

The Examiner has very generally asserted on page 3, paragraph 2 of the Final Office Action dated May 7, 2007, that paragraphs 7, 11, 48-50, 56-62, 78, 87-91, 93, 107, 112-118, 195-199, 206-211 and 214 of the Naples et al. reference variously disclose the features of claim 6. The Examiner has not provided any comments identifying specific figures or circuit elements of the Naples et al. reference. The rejection is thus incomplete in this respect, and Appellants are left with substantial guesswork to formulate a response to the Final Office Action. Consequently, clear issues have not been developed prior to Appeal.

Appellants respectfully submit that the above noted paragraphs of the Naples et al. reference as generally relied upon by the Examiner do not specifically describe or disclose a sound generator that responds to receipt of synchronization data embedded within song data, and that sends an interrupt signal to a multimedia processor responsive to the synchronization data. Particularly, the Examiner has not identified a specific component in the various figures of the Naples et al. reference that generates sound, that generates an interrupt signal responsive to synchronization data embedded in received song data, and that also provides the interrupt signal to a multimedia processor. The Examiner has not specifically identified an interrupt signal. The

Examiner has merely repeated the claims verbatim, identifying in general approximately 40 paragraphs of text that supposedly meet the features of the claims.

Responsive to the arguments presented in the Request for Reconsideration dated August 3, 2007, the Examiner has made further reference on page 2 of the Advisory Action dated August 16, 2007, to paragraphs [0048], [0049], [0097] and [0098] of the Naples et al. reference. The Examiner has alleged that these paragraphs describe or disclose a sound generator that responds to receipt of synchronization data embedded within song data, and that sends an interrupt signal to a multimedia processor.

However, paragraph [0048] of the Naples et al. reference as specifically relied upon by the Examiner in the Advisory Action merely describes that a data file contains a standardized performance of music or sound digitally encoded. The standardized performance is encoded in one or more parts that "can be played back synchronously" by an interactive karaoke system.

Appellants respectfully submit that paragraph [0048] of the Naples et al. reference does not specifically describe a sound generator that plays sound responsive to song data, and that sends an interrupt signal responsive to sync data embedded within the song data to a multimedia processor. Although the standardized performance "can be played back synchronously" as described in paragraph [0048] of the Naples et al. reference, there is no description in this paragraph of sync data embedded in song data, or even how synchronous playback is achieved.

In paragraph [0049] of the Naples et al. reference as specifically relied upon by the Examiner in the Advisory Action, the data file is described as containing additional content such as timing cues, lyrics, and other features. The additional content is time-correlated to audio content for synchronous playback. However, paragraph [0049] of the Naples et al. reference does not specifically describe a sound generator, and more particularly does not specifically describe a sound generator that provides an interrupt signal to a multimedia processor responsive to sync data embedded within song data. Paragraph [0049] in contrast describes timing cues and lyrics, not sync data embedded within song data played by a sound generator. Moreover, there is no description regarding how time-correlation and/or synchronous playback is accomplished in paragraph [0049] of the Naples et al. reference.

In paragraph [0097] of the Naples et al. reference as specifically relied upon by the Examiner in the Advisory Action, cue track 48c is described as specifying timing intervals during which the user is prompted for input stimuli. Paragraph [0097] of the Naples et al. reference does not specifically describe a sound generator, and more particularly does not describe a sound generator that generates an interrupt signal provided to a multimedia processor responsive to sync data embedded within song data. Cue track 48c as described in paragraph [0097] of the Naples et al. reference is not song data, or more particularly is not sync data embedded within song data.

Paragraph [0098] of the Naples et al. reference as specifically relied upon by the Examiner in the Advisory Action, further describes timing of a cue interval which

indicates when a prompt should be displayed to the user. Paragraph [0098] of the Naples et al. reference does not describe a sound generator, and more particularly does not describe a sound generator that sends an interrupt signal to a multimedia processor responsive to sync data embedded within song data.

As emphasized above, the Examiner has very generally asserted on page 3 of the Final Office Action that paragraphs 7, 11, 48-50, 56-62, 78, 87-91, 93, 107, 112-118, 195-199, 206-211 and 214 of the Naples et al. reference variously disclose the features of claim 6. As also emphasized above, the Examiner has further asserted in the Advisory Action dated August 16, 2007, that paragraphs 48, 49, 97 and 98 disclose the features of claim 6. However, Appellants respectfully submit that the above noted paragraphs of the Naples et al. reference as very generally relied upon by the Examiner do not specifically describe or disclose a sound generator that responds to receipt of sync data embedded with song data, and that sends an interrupt signal to a multimedia processor responsive to the embedded sync data. The Examiner has not specifically identified by reference numeral components in the figures of the Naples et al. reference that have been interpreted as the sound generator of claim 6. By very generally directing attention to the various numerous paragraphs of the Naples et al. reference, the Examiner has failed to clearly establish on the record how the Naples et al. reference has been interpreted to include a sound generator, sync data embedded within song data, and an interrupt signal provided by a sound generator responsive to sync data embedded within song data.

Of note, as described in paragraph [0196] of the Naples et al. reference with respect to Fig. 14A, performance timer interface 84 allows exchange of timing signals, or more particular the dissemination of a clock pulse. This would appear to imply that timing is not achieved based on interrupt signals derived from sync signals embedded within song data, as featured in claim 6. For example and not to be construed as limiting, the synchronization data is described on page 6, lines 16-17 of the present application as possibly special data strings, such as the data of MIDI channel 10 of note number 127. Clearly, the disseminated clock of the Naples et al. reference as noted above can not be interpreted as synchronization data embedded within song data, or an interrupt signal responsive thereto, as featured in claim 6. Appellants therefore respectfully submit that the mobile karaoke device of claim 6 distinguishes over the Naples et al. reference as relied upon by the Examiner, and that this rejection of claims 6-12 is improper for at least these reasons.

The mobile karaoke service method of claim 13 includes in combination "playing sound responsive to the song data"; "generating an interrupt signal responsive to the synchronization data embedded within the song data"; and "executing the karaoke events in time order in synchronization responsive to generation of the interrupt signal". Applicants respectfully submit that the Naples et al. reference as relied upon by the Examiner fails to disclose these features.

The Examiner has asserted in the Final Office Action dated May 7, 2007, that the rejection of claims 6-12 gives sufficient grounds for rejecting claims 13-19. However,

the above noted paragraphs of the Naples et al. reference as very generally relied upon by the Examiner do not specifically describe or disclose generating an interrupt signal responsive to synchronization data embedded within song data, and executing karaoke events in time order in synchronization responsive to generation of the interrupt signal. As noted above, the Examiner has not specifically identified in the Naples et al. reference an interrupt signal, or song data having synchronization data embedded therein, as would be necessary to anticipate claim 13. Appellants therefore respectfully submit that the mobile karaoke service method of claim 13 distinguishes over the Naples et al. reference as relied upon by the Examiner, and that this rejection of claims 13-19 is improper for at least these reasons.

### Conclusion

Appellants respectfully submit that claims 6-19 distinguish over the prior art as relied upon by the Examiner, and are in compliance with 35 U.S.C. 112, first paragraph. Appellants therefore respectfully request that the final rejection of claims 6-19 be withdrawn, and that these corresponding claims be passed to issue.

In the event that there are any outstanding matters remaining in the present application, please contact Andrew J. Telesz, Jr. (Reg. No. 33,581) at (571) 283-0720 in the Washington, D.C. area, to discuss these matters.

The required fee of \$500.00 under 37 C.F.R. 41.20 for filing this Appeal Brief should be charged to Deposit Account No. 50-0238.

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If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment for any additional fees that may be required under 37 C.F.R. 41.20 or 37 C.F.R. 1.17 and 1.136(a), or credit any overpayment, to Deposit Account No. 50-0238.

Respectfully submitted,

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**Appendix - Claims on Appeal**

6. A mobile karaoke device comprising:

a memory that stores karaoke contents including karaoke event data in time order and song data, the song data having synchronization data embedded therein;

a sound generator that plays sound responsive to the song data; and

a multimedia processor that provides the song data to said sound generator, and that executes karaoke events according to the karaoke event data,

said sound generator responding to receipt of the synchronization data embedded within the song data by sending an interrupt signal to said multimedia processor, said multimedia processor executing the karaoke events in time order in synchronization responsive to receipt of the interrupt signal.

7. The mobile karaoke device of claim 6, wherein said memory stores the karaoke event data into groups which are each time ordered.

8. The mobile karaoke device of claim 6, wherein said multimedia processor divides the karaoke event data into a number of event zones by executing a reset event.

9. The mobile karaoke device of claim 6, wherein said memory stores text data as the karaoke event data, the text data representative of text to be displayed by the mobile karaoke device.

10. The mobile karaoke device of claim 6, wherein said memory stores picture data as the karaoke event data, the picture data representative of a picture to be displayed by the mobile karaoke device.

11. The mobile karaoke device of claim 6, wherein said memory stores video data as the karaoke event data, the video data representative of video to be played by the mobile karaoke device.

12. The mobile karaoke device of claim 6, wherein said memory stores audio data as the karaoke event data, the audio data representative of audio to be played by the mobile karaoke device.

13. A mobile karaoke service method comprising:

storing karaoke contents including karaoke event data in time order and song data, the song data having synchronization data embedded therein;

playing sound responsive to the song data;

generating an interrupt signal responsive to the synchronization data embedded within the song data; and

executing the karaoke events in time order in synchronization responsive to generation of the interrupt signal.

14. The mobile karaoke service method of claim 13, wherein the karaoke event data is in groups which are each time ordered.

15. The mobile karaoke service method of claim 13, wherein the karaoke event data is divided into a number of event zones by executing a reset event.

16. The mobile karaoke service method of claim 13, wherein the karaoke event data is text data representative of text to be displayed.

17. The mobile karaoke service method of claim 13, wherein the karaoke event data is picture data representative of a picture to be displayed.

18. The mobile karaoke service method of claim 13, wherein the karaoke event data is video data representative of video to be played.

19. The mobile karaoke service method of claim 13, wherein the karaoke event data is audio data representative of audio to be played.

**Evidence Appendix**

No evidence has been submitted under 37 C.F.R. 1.130, 1.131, or 1.132, or entered by the Examiner in connection with this pending Appeal. Thus, there are **no** copies of evidence included in this Appendix.

**Related Proceedings Appendix**

There are no Appeals or Interferences that may be related to, directly affect, or be directly affected by or have a bearing on the Decision by the Board in this pending Appeal. Thus, there are no copies of decisions included in this Appendix.